



# Technical Circular

No.: 025/2023

Date: 12<sup>th</sup> September 2023

## **Subject: EU Port State Control and Local Authorities on Waste Disposal to Port Reception Facility in EU Ports.**

1. It has been reported that European Union (EU) Port State control and local authorities such as the German Water Police are strictly enforcing their requirement for waste disposal under the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL) and ships are being prevented from leaving port until they are compliant with the requirements.
2. In this regard, attention is drawn to European Parliament and the Council Directive (EU) 2019/883 requiring, with certain exceptions, the Master of any ship calling in an EU port to deliver all waste on board to a port reception facility. A ship may proceed to the next port of call if it shows that there is sufficient dedicated storage capacity for all waste that has been accumulated and will be accumulated during the intended voyage of the ship to the next port of call.
3. To provide the methodology for uniformly calculating dedicated storage capacity, the EU issued Regulation 2022/89.
4. Annex I of above EU Regulation contains the arithmetic calculation based on the estimated amounts of waste retained on board in relation to the maximum dedicated storage capacity. Annex II provides the waste generation rates for MARPOL Annexes I, IV, V, and VI.
5. The Used Waste Capacity ('UWC'), estimated at the time of sending the advance waste notification to the port of call and expressed as a percentage of the maximum dedicated storage capacity, **must not exceed a predefined threshold.**
6. UWC is calculated with the following formula:

$$\text{UWC (\%)} = (A \times 100) / M$$

Where:

*A is the estimated amount of waste type to be retained on board at the time of departure from the port of call (expressed in m<sup>3</sup>);*

*M is the Maximum dedicated storage capacity (expressed in m<sup>3</sup>);*

*(The calculation does not apply to waste disposal under MARPOL Annex II or passively fished wastes)*



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7. Below table provides the threshold values for the corresponding type of waste and next port of call.

<b>Thresholds</b>				
Next port of call	Annex I to the MARPOL Convention	Annex IV to the MARPOL Convention	Annex V to the MARPOL Convention	Annex VI to the MARPOL Convention
Next port of call is an EU-port or is in the 'Group of Additional Selected Ports'	50 %	50 %	25 %	75 %
Next port of call is not an EU-port, nor is in the 'Group of Additional Selected Ports'	25 %	50 %	20 %	25 %

NOTE: The 'Group of Additional Selected Ports' includes those ports that are to be considered as EU-ports for the purpose of the application of the thresholds set out in Table. The ports included in this group are all ports located in: Iceland, Norway, United Kingdom (including Isle of Man, Channel Islands and Gibraltar) and Russian ports located in the Baltic Sea.

8. Where a ship is found to have more waste onboard than the threshold values mentioned above, **the port authorities may not allow the ship to leave the port.**
- i.e.  $UWC (\%) < \text{Threshold (for compliance)}$
9. These EU Regulations apply to ports of call between EU ports as well as those between EU ports and non-EU-ports.
10. Owners/ operators and Masters of ships plying in EU ports are advised to be guided by above.

**Enclosure:**

1. Regulation (EU) 2022/89, dated 21 January 2022.

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## II

(Non-legislative acts)

## REGULATIONS

## COMMISSION IMPLEMENTING REGULATION (EU) 2022/89

of 21 January 2022

**laying down rules for the application of Directive (EU) 2019/883 of the European Parliament and of the Council as regards the method to be used for the calculation of sufficient dedicated storage capacity**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships, amending Directive 2010/65/EU and repealing Directive 2000/59/EC <sup>(1)</sup>, and in particular Article 7(4), second subparagraph, thereof,

Whereas:

- (1) Article 7(4), points (a) and (b), of Directive (EU) 2019/883 establishes an exception from the general obligation to deliver all waste carried on board to the port of call for ships that have sufficient dedicated storage capacity for all waste that has been accumulated and will be accumulated during their intended voyage until the next port of call.
- (2) By applying the calculation method defined in this Regulation, Member States should be able to implement the exceptions from the general obligation to deliver all waste carried on board with respect to availability of sufficient storage space in a harmonised way.
- (3) The calculation method should not be applied to waste disposal under Annex II to the International Convention for the Prevention of Pollution from Ships ('MARPOL Convention'). As set out in Annex II to the MARPOL Convention, waste disposal is regulated by the MARPOL Convention and the delivery of such waste is either mandatory at the port where cargo is unloaded before a new cargo is loaded or discharge at sea is permitted under certain conditions. Depending on the substance, delivery of cargo residues regulated by Annex II to the MARPOL Convention is mandatory before departure, subject to the procedures and control established under Regulations 13 and 16 of that Annex. Cargo residues under Annex II to the MARPOL Convention containing category X substances, high-viscosity persistent floating Y substances and high-viscosity or solidifying Y substances, are regulated by mandatory pre-wash and requirements to deliver such waste in a port reception facility set out in Regulations 13 and 16 of Annex II to the MARPOL Convention.
- (4) The calculation method should not be applied to passively fished waste. Dedicated storage for this type of waste on board does not always exist and delivery of all passively fished waste is incentivised by the cost recovery system set out in Article 8(2), point (d), of Directive (EU) 2019/883.

<sup>(1)</sup> OJ L 151, 7.6.2019, p. 116.

- (5) In order to provide for uniform conditions for the application of the exemptions to the waste delivery obligation set out in Article 7(4), points (a) and (b), of Directive (EU) 2019/883, it is indispensable that Member States apply a harmonised methodology. Implementing acts adopted pursuant to Directive (EU) 2019/883 should therefore take the form of implementing regulations.
- (6) The measures provided for in this Regulation are in accordance with the opinion of the Committee on Safe Seas and Prevention of Pollution from Ships,

HAS ADOPTED THIS REGULATION:

#### *Article 1*

1. Member States shall calculate the sufficient dedicated storage capacity for the application of Article 7(4), points (a) and (b), and Article 9 of Directive (EU) 2019/883 by using the method set out in Annex I to this Regulation.
2. For the purpose of verifying the information provided in accordance with Annex 2 to Directive (EU) 2019/883, by estimating the on-board generation of different waste types, Member States shall take into account the waste generation rates set out in Annex II to this Regulation.
3. In addition to the waste generation rates set out in Annex II to this Regulation, Member States may use one or both of the following criteria to determine estimates for the on-board generation of different waste types:
  - (a) historic records for generated waste, based on advance waste notification forms and waste delivery receipts available for the ship in question;
  - (b) on-board inspections obtaining information on previous waste generation rates, details of on-board waste management and equipment specific or trading area specific information affecting the actual waste generation rate.

#### *Article 2*

The method for calculating the sufficient dedicated storage capacity, set out in Annex I to this Regulation, shall not be applicable to the following waste types:

- (a) waste types under Annex II to the MARPOL Convention;
- (b) passively fished waste.

#### *Article 3*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 21 January 2022.

*For the Commission*  
*The President*  
Ursula VON DER LEYEN

## ANNEX I

**Calculation method for sufficient dedicated waste storage capacity**

1. The method uses an arithmetic calculation based on the estimated amounts of waste retained on board in relation to the maximum dedicated storage capacity.
2. The Used Waste Capacity ('UWC'), estimated at the time of sending the advance waste notification to the port of call and expressed as a percentage of the maximum dedicated storage capacity, shall not exceed a predefined threshold.
3. The UWC shall be calculated with the following formula:

$$\text{UWC (\%)} = \frac{A \cdot 100}{M}$$

4. The UWC shall comply with the following condition:

$$\text{UWC (\%)} < \text{Threshold}$$

Where:

A is the estimated amount of waste type to be retained on board at the time of departure from the port of call (expressed in m<sup>3</sup>);

M is the Maximum dedicated storage capacity (expressed in m<sup>3</sup>);

Threshold is the value set out in Table 1, for the corresponding type of waste and next port of call.

Table 1

**Thresholds**

Next port of call	Annex I to the MARPOL Convention	Annex IV to the MARPOL Convention	Annex V to the MARPOL Convention	Annex VI to the MARPOL Convention
Next port of call is an EU-port or is in the 'Group of Additional Selected Ports'	50 %	50 %	25 %	75 %
Next port of call is not an EU-port, nor is in the 'Group of Additional Selected Ports'	25 %	50 %	20 %	25 %

5. For the purpose of using the calculation method for sufficient dedicated waste storage capacity, the following shall apply:
  - (a) Port of call, as indicated in the advance waste notification form set out in Annex 2 to Directive (EU) 2019/883, is the port where the ship is heading and where the advanced waste notification is sent to, in accordance with Article 6 of Directive (EU) 2019/883;
  - (b) Next port of call is the port to be called after departure, as indicated in point 2.5 of the advance waste notification form set out in Annex 2 to Directive (EU) 2019/883;
  - (c) The amount indicated in the sixth column 'Estimated amount of waste to be generated between notification and next port of call' of point 3 of the advance waste notification form set out in Annex 2 to Directive (EU) 2019/883 refers to waste generated and intended to be disposed at a port reception facility. Amounts that may be legally discharged shall not be included in the reported value.
6. The 'Group of Additional Selected Ports' includes those ports that are to be considered as EU-ports for the purpose of the application of the thresholds set out in Table 1. The ports included in this group are all ports located in: Iceland, Norway, United Kingdom (including Isle of Man, Channel Islands and Gibraltar) and Russian ports located in the Baltic Sea.

7. During the first two years of application of this Regulation, the UWC as calculated in the third paragraph of this Annex may be treated as indicative for the following cargo residues waste types:
- (a) MARPOL Annex I – Oil: Oily tank washings;
  - (b) MARPOL Annex I – Oil: Dirty Ballast Water;
  - (c) MARPOL Annex V – Garbage: Cargo Residues (HME);
  - (d) MARPOL Annex V – Garbage: Cargo Residues (non-HME).
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## ANNEX II

Table 1

**Waste Generation Rates for Annexes I, IV and V to the MARPOL Convention <sup>(1)</sup>**

Type of waste	Generation rate	Driver	On-board treatment
Oily bilge water	0,01-13 m <sup>3</sup> per day, larger ships generate larger quantities.	Condensation and leakages in the engine room; size of the ship.	The amount can be reduced by 65-85 % by using an oil water separator and discharging the water fraction into the sea.
Oily residues (sludge)	0,01 to 0,03 m <sup>3</sup> of sludge per tonne of HFO. 0 and 0,01 m <sup>3</sup> per tonne of MGO.	Type of fuel; fuel consumption.	Evaporation can reduce the amount of sludge by up to 75 % <sup>(2)</sup> . Incineration can reduce the amount of sludge by 99 % or more.
Tank washings (slops)	20 to hundreds of m <sup>3</sup>	Number of tank cleanings; size of loading capacity.	After settling, the water fraction may be discharged at sea.
Sewage	0,01 to 0,06 m <sup>3</sup> per person per day. Sewage is sometimes mixed with other waste water. The total amount ranges from 0,04 to 0,45 m <sup>3</sup> per day per person.	Number of persons on-board; type of toilets; length of voyage; type of treatment: the operation of a sewage treatment plant, or comminuting and disinfection system provides different quantities of waste	Effluent from treatment plants is often discharged at sea where permitted under MARPOL Annex IV.
Plastics	0,001 to 0,008 m <sup>3</sup> of plastics per person per day.	Number of persons on-board.	Often not incinerated. Dirty plastics (plastics that have been in contact with food) are often treated as a separate waste stream.
Food wastes	0,001 to 0,003 m <sup>3</sup> per person per day.	Number of persons on-board; provisions.	Where permitted under MARPOL Annex V, food waste is often discharged at sea.
Domestic wastes	0,001 to 0,02 m <sup>3</sup> per day per person.	Number of persons on-board; type of products used.	
Cooking oil	0,01 to 0,08 litres per person per day.	Number of persons on-board; type of food prepared.	Although not permitted, cooking oil is sometimes still added to the sludge tank.
Incinerator ashes	0,004 and 0,06 m <sup>3</sup> per month.	Use of incinerator; cost of using incinerator.	The incinerator is not used for all types of waste, mostly for paper sometimes for oily sludge.
Operational wastes	0,001 to 0,1 m <sup>3</sup> per person per day.	Size of the ship; type of cargo.	
Cargo residues	0,001-2 % of cargo load.	Type of cargo. Size of ship.	

<sup>(1)</sup> Extracted from EMSA's study 'The Management of Ship-Generated Waste On-board Ships', January 2017.

<sup>(2)</sup> Evaporation of the water fraction in oil sludge is a process that must be carefully managed and should only be done to the extent to allow combustibility of the sludge intended for incineration.

Table 2

**Waste Generation Rates for Annex VI to the MARPOL Convention on waste (exhaust gas cleaning systems, 'EGCS')**

Type of EGCS	Coefficient	Unit	Examples (10 MW engine or HFO consumption 40 t/day)
<b>Manufacturer 1</b>			
Open loop sludge amount	0,1	kg/MWh	$0,1 \times 10 \text{ MW} \times 24 = 24 \text{ kg/day}$
Closed loop sludge amount (DAF-BOTU)	3,5-7,0	kg/MWh, depending on SFOC, MCR and fuel quality	$3,5 \times 10 \text{ MW} \times 24 = 840 \text{ kg/day}$
Closed loop sludge amount (BOTU-M)	3,0	l/MWh/S%, depending on SFOC, MCR and fuel quality	$3,0 \times 10 \text{ MW} \times 24 \times S2,5 \% = 1800 \text{ l/day}$
<b>Manufacturer 2</b>			
Closed loop sludge amount	2,5-3,0	kg/consumed HFO t	$2,5 \times 40 \text{ t/day} = 100 \text{ kg/day}$

NB: The amount of exhaust gas cleaning system sludge generated depends ultimately also on the individual installation specifics: the exhaust gas cleaning system manual provided by the manufacturer should therefore be consulted. Information in the tables provided by stakeholder companies.